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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,508	09/16/2003	Toru Takayama	12732-166001	1342

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EXAMINER	
LE, THAO X	

ART UNIT	PAPER NUMBER
2814	

DATE MAILED: 03/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/662,508	TAKAYAMA ET AL.	
	Examiner	Art Unit	
	Thao X. Le	2814	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 March 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,12-15 and 17-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,12-15 and 17-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-6, 12-15 and 17-22, and 36-37 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-22 of copending Application No. Application No. 10/662357 (US 2004/0056589) in view of US PUB 2004/0187917 to Pichler or US 6872473 to Song

This is a provisional obviousness-type double patenting rejection.

In claims 1-22, Yamazaki (6589) claims a light emitting apparatus comprising a TFT electrically connects to the first electrode, a luminescent layer formed over the first electrode, a second electrode formed over the luminescent layer, an inorganic layer (silicon oxide, silicon nitride) formed over the second electrode, and a fluoroplastics formed over the inorganic layer.

But, Yamazaki (6589) does not disclose a fluoroplastics formed over a second electrode and an inorganic layer (silicon oxide, silicon nitride) formed over the fluoroplastics layer.

However, Pichler discloses a liquid crystal display in fig. 5 comprising a luminescent layer 501 [0070], [0071], and [0101] formed over the first electrode 508, a second electrode 502 formed over the luminescent layer 501, a fluoroplastics 512 [0108] formed over the second electrode 502, an inorganic layer (silicon oxide, silicon nitride) [0108] formed on the fluoroplastics. At the time the invention was made; it would have been obvious to one of ordinary skill in the art to use the inorganic layer formed on the fluoroplastics teaching of Pichler with Yamazaki's device, because it would have protected against exposure to water or air as taught by Pichler [0108].

In addition, Song also discloses a light emitting apparatus in fig. 1 comprising: a first electrode (anode); a second electrode (cathode) over the first electrode; an electroluminescent (EL) film disposed between the first electrode and the second electrode (organic EL layer 300 has EL layer formed between

anode and cathode layers as described in col. 3 lines 33-39); a film 400 containing fluoroplastics, col. 3 lines 50-51, formed over the second electrode; and an inorganic insulating film 500, col. 4 line 25, formed over the film 400 containing fluoroplastics. At the time the invention was made; it would have been obvious to one of ordinary skill in the art to use the inorganic film over the fluoroplastics teaching of Song in Kawase's device, because it would have protected the device from degradation caused by an external factor such as oxygen or moisture as taught by Song, see abstract.

With respect to claims 23-28, it would have been obvious to one of ordinary skill in the art to use the teaching of Pichler and Yamazaki as claim for intended used, MPEP 2144.07.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-6, 12-15, 17-32, 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2003/0001992 to Kawase et al. in view of US PUB 2004/0187917 to Pichler or US 6872473 to Song.

Regarding claims 1-2, Kawase discloses a light-emitting apparatus having a light-emitting device in fig. 24 comprising: a substrate 400 [0232], a thin film transistor (TFT) 502 [0240], an insulating film 544 [0252] over the TFT, a first electrode 546 [0255] a second electrode 548 [0257] over the first electrode 546 over the insulating film 544 and electrically connected to the TFT, fig. 24; an electroluminescent (EL) film 547 [0256] disposed between the first electrode and the second electrode; a film 549 [0259] formed over the second electrode 548; and an inorganic insulating film 550 [0259] formed over the film 549; wherein the insulating film 544 comprises a first insulating film 544 and a second insulating film 545 formed on the first insulating film; the first insulating film 544 comprises a material selected from the group consisting of acrylic, polyamide, and polyimide [0252], and the second insulating film 545 comprises silicon [0250].

But, Kawase does not disclose a light-emitting apparatus wherein a film containing fluoroplastics form over the second electrode and wherein the second insulating film comprises fluoroplastics.

However, Pichler discloses a liquid crystal display in fig. 5 comprising a luminescent layer 501 [0070], [0071], and [0101] formed over the first electrode

508, a second electrode 502 formed over the luminescent layer 501, a fluoroplastics 510 and 512 [0108] formed over the first and second electrodes 508/502, an inorganic layer (silicon oxide, silicon nitride) [0108] formed on the fluoroplastics. At the time the invention was made; it would have been obvious to one of ordinary skill in the art to use the inorganic layer formed on the fluoroplastics and inorganic layers teaching of Pichler with Kawase's device, because it would have and protected against exposure to water or air as taught by Pichler [0108].

In addition, Song also discloses a light emitting apparatus in fig. 1 comprising: a first electrode (anode); a second electrode (cathode) over the first electrode; an electroluminescent (EL) film disposed between the first electrode and the second electrode (organic EL layer 300 has EL layer formed between anode and cathode layers as described in col. 3 lines 33-39); a film 400 containing fluoroplastics, col. 3 lines 50-51, formed over the second electrode; and an inorganic insulating film 500, col. 4 line 25, formed over the film 400 containing fluoroplastics. At the time the invention was made; it would have been obvious to one of ordinary skill in the art to use the inorganic film over the fluoroplastics teaching of Song in Kawase's device, because it would have protected the device from degradation caused by an external factor such as oxygen or moisture as taught by Song, see abstract.

Regarding claims 3-4, 17-18, Kawase discloses a light-emitting apparatus having a light-emitting device in fig. 24 comprising: a substrate 400 [0232], a thin film transistor

(TFT) 502 [0240], an insulating film 544 [0252] over the TFT, a first electrode 546 [0255] a second electrode 548 [0257] over the first electrode 546 over the insulating film 544 and electrically connected to the TFT, fig. 24; an electroluminescent (EL) film 547 [0256] disposed between the first electrode and the second electrode; a film 549 [0259] formed over the second electrode 548; and an inorganic insulating film 550 [0259] formed over the film 549; wherein the insulating film 544 comprises a first insulating film 544 and a second insulating film 545 formed on the first insulating film; the first insulating film 544 comprises a material selected from the group consisting of acrylic, polyamide, and polyimide [0252], and the second insulating film 545 comprises silicon [0250].

But, Kawase does not disclose a light-emitting apparatus wherein a film containing fluoroplastics form over the second electrode and wherein the second insulating film is mixed film comprising fluoroplastics and metallic oxide.

However, Song discloses a light emitting apparatus in fig. 1 comprising: a first electrode (anode); a second electrode (cathode) over the first electrode; an electroluminescent (EL) film disposed between the first electrode and the second electrode (organic EL layer 300 has EL layer formed between anode and cathode layers as described in col. 3 lines 33-39); a film 400 containing fluoroplastics, col. 3 lines 50-51, formed over the second electrode; and an inorganic insulating film 500, col. 4 line 25, formed over the film 400 containing fluoroplastics. At the time the invention was made; it would have been obvious to one of ordinary skill in the art to use the inorganic film over the fluoroplastics teaching of Song in Kawase's device, because it would have protected the

device from degradation caused by an external factor such as oxygen or moisture as taught by Song, see abstract.

With respect to mixed film comprising fluoroplastics and metallic oxide. The interface of layers 400 and 500 of Song would comprise mixed fluoroplastics and metallic oxide.

Regarding claims 5, 12-14, 19-20, Kawase does not disclose the light emitting apparatus wherein the film containing fluoroplastics is one type of polymer selected from polychlorotrifluoroethylene.

However, Song discloses the light emitting apparatus wherein the film containing fluoroplastics is one type of polymer selected from polychlorotrifluoroethylene, col. 3 lines 50-55. At the time the invention was made; it would have been obvious to one of ordinary skill in the art to use the inorganic film over the fluoroplastics teaching of Song in Kawase's device, because it would have protected the device from degradation caused by an external factor such as oxygen or moisture as taught by Song, see abstract.

Regarding claims 6, 15, and 21-22, Kawase does not disclose the light emitting apparatus wherein a ratio of the metallic oxides in the mixed film monotonically increases from a portion of the mixed film distant from the first electrode to a portion of the mixed film close to the first electrode.

However, Song discloses an fluoroplastics layer 400 and an metallic layer 500; it would have been obvious to one of ordinary skill in the art to understand the interface of 400 and 500 is a mixed film comprising fluoroplastics and metallic

oxides, and a ratio of the metallic oxides in the mixed film monotonically increases from a portion of the mixed film distant from the first electrode to a portion of the mixed film close to the first electrode as the resulted of the interface between the two layers.

Regarding claims 23-28, Kawase discloses the light emitting apparatus is selected from the group consisting of digital camera, laptop computer, mobile computer, portable image reproducing device, goggle type display, video camera and cellular phone [0005].

Regarding claims 29-32, Kawase does not disclose the light emitting apparatus wherein the film containing fluoroplastics is one type of polymer selected from polychlorotrifluoroethylene, wherein the film containing fluoroplastics has irregularities.

However, Song discloses the light emitting apparatus wherein the film containing fluoroplastics is one type of polymer selected from polychlorotrifluoroethylene, col. 3 lines 50-55. At the time the invention was made; it would have been obvious to one of ordinary skill in the art to use the inorganic film over the fluoroplastics teaching of Song to replace the film 136 in Kim's device, because it would have protected the device from degradation caused by an external factor such as oxygen or moisture as taught by Song, see abstract.

With respect to 'irregularities', it would have been obvious that the junction of layers 400 and 500 of Song would comprise irregularities because of different materials interface.

Regarding claim 36-37, Kawase does not disclose a light-emitting apparatus wherein the second insulating film is mixed film comprising fluoroplastics and metallic oxide, and a ratio of the metallic oxides in the mixed film monotonically increases from a portion of the mixed film distant from the first electrode to a portion of the mixed film close to the first electrode.

However, Song discloses an fluoroplastics layer 400 and an metallic layer 500; it would have been obvious to one of ordinary skill in the art to understand the interface of 400 and 500 is a mixed film comprising fluoroplastics and metallic oxides, and a ratio of the metallic oxides in the mixed film monotonically increases from a portion of the mixed film distant from the first electrode to a portion of the mixed film close to the first electrode as the resulted of the interface between the two layers.

Response to Arguments

6. Applicant's arguments with respect to claims 1-6, 12-15, 17-32, 36 and 37 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

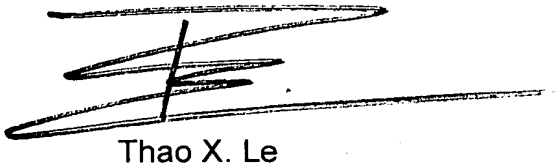
7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao X. Le whose telephone number is (571) 272-1708. The examiner can normally be reached on M-F from 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael M. Fahmy can be reached on (571) 272 -1705. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thao X. Le
29 Mar. 2006